MARKS IN VEDA MANTRAS
****
In veda mantras we can see the following markings.

1. underlined Syllable =Anudaaththam= Parvati = Shakti =female syllable = F |
2. Unmarked Syllable = udaaththam =combo of siva and Parvati known as अर्धनारीश्वर|
(In अर्धनारीश्वर Left part is male and right part is female) = शिवशक्त्यैक्यं =A. ie, A=M+F |
3. Top vertical syllable =swaritam = siva = male syllable = M |
4. अर्धनारीश्वर is Jeevaksharam. |
5. I am putting * mark to indicate vertical above a syllable. Example वे* means vertical on वे।
6. एकश्रुति Syllables are also markless Syllables appearing immediately after a vertical syllable. They are not Jeevaksharams. Very important to note this point.

Very important sets for protecting Jeevaksharams.
****
A is अर्धनारीश्वर ie Jeevaksharam
F, A, M is very important set for protecting Jeevaksharam .
F,A is very important set for protecting Jeevaksharam .
A,M is very important set for protecting Jeevaksharam .
M,A is very important set for protecting Jeevaksharam .
A,F is very important set for protecting Jeevaksharam .

PROTECTION OF JEEVAKSHARAM , MEANING
****
PROTECTION OF JEEVAKSHARAM means putting the underline and vertical in a kachcha vaakyam in such a way that Ardhanareeswara A is proected in the kachcha vaakyam as per the important SETs mentioned.
Example. पदपाठं। ---------> नम:*| ते_ |रु_द्र_ |(available in rudra Ghanam of Veda VMS). Here न is the only Jeevaksharam .
For the above पदपाठं, Ghanam available in any text including Veda VMS is as under.

नम*स्ते ते_ नमो_ नम*स्ते रुद्र रुद्र ते_ नमो_ नम*स्ते रुद्र |
We will now check if the Jeevaksharam न of पदपाठं is protected or not.
नम* is AM . So protected
स्ते is एकश्रूति syllable .
ते_ न is FA. So protected.
मो_नम* is FAM. So protected.
स्ते रुद्र रुद्र all Syllables are एकश्रूति syllables
ते_ न is FA. So protected.
मो_नम* is FAM. So protected.
स्ते रुद्र all Syllables are एकश्रूति syllables

STARTING POINT OF VEDA MARKS.
****
We have the veda mantras like kramam, jataa, ghanam, samhita etc. Our aim is to understand

on what basis swaram marks are present in these mantras. Which are the governing rules behind the markings.? What is the starting point of these marked mantras?
The starting point for the marked veda mantras is पदपाठं available in Veda VMS as पदपाठं। Important to note that पदपाठं is a VEDIC word. पदपाठं contains syllables of vertical marks, syllables of underline marks, and syllables of no marks. This is the modern method for visual representation of vedic accent variations that were transmitted from authentic guru to others orally in ancient times.

For Bhagavad Gita, Narayaneeyam and srimad Bhagavatam and such laukeeka texts we have only plain पदंs without intonations. For such texts पदपाठं with marks are not available.

PURPOSE OF MARKS IN PADA पाठं and in VEDA VAAKYAMS.
****
The purpose of marks seen in Veda mantras is to protect the अर्धनारीश्वर of पदपाठं ।

In पदपाठं , in certain places, Jeevaksharam or "Jeevaksharam set" is available . Our first job is to identify them and keep . Every thing else is afterwords. Without doing the identification of the Jeevaksharam from पदपाठं we cannot proceed. Please note this point.
When we convert पदपाठं to vaakyam , sandhi may happen or may not happen between two syllables. By applying sandhi rules we get Kachcha vaakyam where markings of पदपाठं may get affected. Then we should do changes in markings of Kachcha vaakyam to protect the Jeevaksharam of पदपाठं to get final vaakyam. These changes are to be effected by applying rules . We will study these rules in this document.

AN IMPORTANT NOTE. Underlined Syllables of पदपाठं can be changed to vertical Syllables in vaakyams and vertical Syllables of पदपाठं can be changed to Underlined Syllables in vaakyams to protect the Jeevaksharam of पदपाठं . This is the rule. I might repeat this concept in this write up because of its importance and frequent use.

ONE MORE IMPORTANT NOTE.
****
All rules are not required always. Many of the rules are required rarely. Even though the rules are written in many sentences, they are not at all difficult. Once you understand the rule, then it is very easy. Understanding the markings of Rudra ghanam as a test case is much easier than we think while reading the rules.

THE RULES*

Rule 1. एकश्रुति Syllables.(A very important matter) Repeated.

अर्धनारीश्वर is a markless Syllable and Jeevaksharam protected by protection sets. This is very important.This we said. But every markless Syllable is not अर्धनारीश्वर always because एकश्रुति Syllables are also markless syllables but they are not अर्धनारीश्वर।
एकश्रुति Syllables are also markless Syllables appearing immediately after a vertical syllable. This is the rule. These markless Syllables after a male Syllable are actually female Syllables . But their underline is removed as per the rule called एकश्रुति rule. Read it twice.

Rule 2. INSTABILITY of marks of पदपाठं and stability of Jeevaksharam in पदपाठं
****
I am repeating. The verticals and underlines of Rishi's पदपाठं are valid in पदपाठं only.
For Protection of अर्धनारीश्वर in a Kachcha vaakyam, we can change original vertical to underline and original underline to vertical and we can apply एकश्रुति rule wherever required to establish the important sets. These changes establish that अर्धनारीश्वर of पदपाठं is protected in vaakyam by abiding all norms . This is important and normal and common.

RULE 3. Case of Many females sitting together. (Something serious.)
More than one female Syllable will be allowed to sit together in the beginning of a sentence only. Not afterwords. This is the rule. So inside the Kachcha vaakyam, we should change the marks by applying rules of एकश्रूति and rules of Jeevaksharam protection.

RULE 4.Case of gm in rishi's पदपाठं and in vaakyam. (Simple one)
Suppose we see a syllable with gm symbol with two underlines as (हि_∆_) in a पदपाठं and if it has to be converted to vertical in the sentence, then , the vertical mark will be only for gm symbol as (हि∆*) and not on both as (हि*∆*) . This is the rule.

RULE 5. Case of न् marking in rishi's पदपाठं and in vaakyam.(Simple one).
In पदपाठं we will see the ending न् written as गवयन्न्*. In पदपाठं vertical mark is on न्न्*.
This is the practice. But inside the vaakyam it is गवयन् only and the vertical mark will have to be put on य not on न् . So inside vaakyam it will have to be गवय*न् . In the end of a vaakyam it will be गवयन्न्*.

RULE 6. Case of married couples.[Very serious Rule] (unda mandi rule)
The combo of (female and male) = (underline and vertical)= undamandi= FM= sitting nearby in Rishi's
पद पाठं should be retained in vaakyam also as FM. So while putting marks in Kachcha vaakyam for final vaakyam we should take care of this. They are married couples. They are not to be separated. This is the rule. This rule is important. Please note that the married couples are F-M and not M-F.
Because of the adamant nature of undamandi, the letter appearing after undamandi becomes ekasruti even if it was jeevaksharam in पदं. This is an uneasy exception which we have to accept.

Rule 7 . Case of इति(simple rule to be understood)
In Rishi's पदपाठं to indicate that a compound word contains two words it will be seen that the word इति is used as इति* where इ is अर्धनारीश्वर and ति is male.
In the final vaakyam also इ should be retained as अर्धनारीश्वर with rules of protection. ति will be vertical or underline as per the situation there. This is the rule

RULE 8. Cases of Double verticals in Krishna yajurveda.
****
Rule 8.1. Double vertical Type1.

In a Kachcha vaakyam if SINGLE VERTICAL ON DEERGHA ANUSWARAM can exit as per demands of the vaakyam construction, then we should
write it as double vertical. This is the rule. Here the heart of the matter is that all of the three parts namely, single vertical and deergham and anuswaram should be alive in vaakyam . Then only we can make it double vertical. It also means that for putting double vertical, the anuswaram of पदपाठं should not change by sandhi rules in vaakyam. This is the rule.

Rule 8.2. Double vertical Type 2.
In a Kachcha vaakyam if SINGLE VERTICAL ON DEERGHA VISARGAM can exit as per demands of the vaakyam construction, we should write it as double vertical. This is the rule. Here, the heart of the matter is that all of the three patrs namely ,single vertical and deergham and visargam should be alive in vaakyam . Then only we can make it double vertical.It also means that for putting double vertical, the visargam of पद पाठं should not change by sandhi rules in Kachcha vaakyam . This is the rule.

Rule. 8.3. Double vertical Type 3.
After modifications of Kachcha vaakyam if we see a combination of
(single vertical + kootaksharam)then,we should change Single vertical to double vertical . This is the rule.

Rule. 8.4. Double vertical Type 4.
If a Kachcha vaakyam ends in a vertical on a deergha Syllable then, we should change that single vertical to double vertical. This is the rule. Please note that anuswaram syllable and visarga syllable are also deergha syllables.

Rule. 9. Mail domination in sandhi of male and female . M for(M-F)
In a Kachcha vaakyam if sandhi between male and female happens, then a new Syllable will be formed . Now the question is what mark we should put for the new syllable ? Male or female?Vertical or underline? . The answer is that we should mark the new Syllable as male . ie vertical.This is the rule. That is why I call this rule as mail domination rule. This is simple.

Rule 10a.---> What is य् sandhi ?
य् sandhi means , the new born after sandhi between two members will have य् in it.
Example. अति+ उत्तमं = अत्युत्तमं. This is as per sandhi rules.

Here अत्युत्तमं is अत् युत्तमं This has य् as new born in it. So we call it य् sandhi.
This understanding is required to understand one more rule.
****

Rule 10b ----->What is व् sandhi ?
व् sandhi means , the new born after sandhi between two members will have व् in it.
Example. मधु + एतत् =मध्वेतत् This is as per sandhi rules.

This मध्वेतत् is मध् वेतत् . This has व् as new born in it. So we can call it व् sandhi.
This understanding is required to understand one more rule.
****

Rule 10c. ------> What is अवग्रह sandhi.?
अवग्रह sandhi means , the new born after sandhi between two members will have अवग्रह in it. अवग्रह means the symbolऽ.

रामः +अहं =रामोऽहं This is as per sandhi rules.
This रामोऽहं has अवग्रह symbol ऽ in it. So we can call it अवग्रह sandhi.
This understanding is required to understand one more rule.
****

RULE 11. RARE & ABNORMAL VEDIC MARKS FROM CERTAIN SANDHI CASES .
We are now studying rare abnormal marks in vaakyams resulting from certain sandhis between two member Syllables.

RULE 11a. Sandhi between A and F in य् /व् Sandhi . New born is M.
If the individuals अर्धनारीश्वर A and then अ with underline (of पद पाठं) meet in य् /व् Sandhi in a vaakyam then the new Syllable formed should be marked as MALE. This is the rule . By this rule, we notice that the important अर्धनारीश्वर loses its domination surprisingly.
Example.
पा_हि + अ_स्मान् Here हि plain and अ underline are joining. As per rule 11a, the product with marks will become पा_ ह्य*स्मान्। The abnormalty is that the original ह which was jeevaksharam lost that status in the product and became ह्य* ie vertical. This abnormalty is called KSHAIPRA SANDHI

Rule 11b. A and F in sandhi OTHER THAN य् व् Sandhi. Result is A.

If the individuals अर्धनारीश्वर A and then F of पद पाठं meet in a sandhi other than यव Sandhi or Avagraha sandhi or औअ sandhi in a vaakyam then the new Syllable formed should be marked as अर्धनारीश्वर. This is the rule . This is normal.

Rule11c. Sandhi between J plain and (अ underline of second word) in avagraha sandhi. After sandhi formation , the letter behind avagraha symbol (ऽ) should be marked with vertical. THIS IS THE ABNORMAL ABHI NIHITAA SANDHI

If A and (अ female of second word) meet in avagraha sandhi and in the process अ becomes avagraham ie ऽ, then we should mark VERTICAL on the syllable which is behind ऽ. This is the rule. This means Jeevaksharam loses its original status surprisingly.
Ex. ते+ अव=तेऽव। This is as per rule. This is normal avagraha sandhi.
Here, if ते is plain and अ has underline then in the product तेऽव,we should mark vertical on ते as ते*ऽव. So ते loses its Jeevaksharam status. This is the rule. Plain ते +अ_व-->तेऽव

Rule 11d. Sandhi between A and (अ female) in sandhi other than avagraha sandhi. Result isA.
If अर्धनारीश्वर and (अ female) meet in a sandhi other than
Avagraha sandhi in a vaakyam then the new Syllable formed should be kept markless as अर्धनारीश्वर . This is the rule . This is normal.

Rule 11e. Sandhi between vertical औ and अ plain . Result is M.
If male औ or अ as starting Syllable of अर्धनारीश्वर meet in Sandhi in a vaakyam then the new Syllable formed in place of औ should be marked Male ie. Vertical. This is the rule. So the next Syllable becomes एकश्रूति. Surprisingly original A is not protected.. Yes this rule is difficult to understand. But such occurances are less in number. Once you come across an example and understand it is very simple.

Example. स_हनौ* +अवतु . Here नौ* is male and अ is markless(ie अ is अर्धनारीश्वर) . Now by applying Sandhi rules ,
we get स_हना* ववतु . This is final also. Here व,व,तु are not protected .

Rule 11.f. Case of a padam starting with Vertical ie. We are discussing, the set of Syllables, sitting as M plus ekakampams in पदपाठं. The important rule is that a padam should not start with Male. But here we are discussing such padams seen in veda VMS पद पाठं. Starting with vertical syllable happens because that padam is a joint padam of two words as in the examples below. Here vertical syllable is prime swaram and should be retained in vaakyam also.
स्वि*ष्टं=सु* + इ_ष्टं_ OR. त्र्यं*बकं = त्रि*+ अं_ब_कं_

Rule 11g ऋ rule
तेन+ऋषिणा = तेनर्.षिणा This is plane sandhi rule we know.

तेन*। +ऋषि*णा। (In padams, ते and ऋ are jeeva. We should know the rule that र् should be protected by any method.)
So the product is तेनर्.षि*णा . Here what happened is that न which was not jeeva in padam became jeeva in the product. We understand, accept and remember this rule. That is it. In TS4.4.6.2
we can experience the rule applied.

12. Interestig Steps for reaching final vaakyam from पद पाठं. These are not rules. Just some guidelines to practice in the initial stages of study of veda maks . After a few trials all steps can be done in the mind itself.
****
Let us understand rudra ghanam markings in Veda VMS .
Open rudra ghanam of Veda VMS. Here we see three words from Rishi's पद पाठं. The ghanam vaakyam from these three words are given below the Rishi's पद पाठं in Veda VMS. This is a special facility available in Veda VMS. For understanding the marks in vaakyam we should consider the vaakyam as a single word without gaps. Then only we will get the continuity.

Step12.1. (Pada पाठं step).Say P
****
Write in a paper with blue pen the three words from Veda VMS with their markings. Now we have words 1,2,3 with markings.

Step12.2. (Identification step).Say I
****
Identify and circle pure A and married couples FM by red pen. Don't circle एकश्रूति Syllables which are also markless.

Step12.3. (Kachcha vaakyam step). Say K
****
Using the three words , write with blue pen ghanam by the rule of 1221123321123. Put the marks of all Syllables as per पद पाठं by blue pen. Also repeat red circling as done in step 2. You can refer the ghanam vaakyam of Veda VMS also. This is kachcha vaakyam without application of sandhis.
Step 12.4. (Sandhi rules to be applied). Say S
****
By own knowledge of sandhi rules ,modify the of Syllables of Kachcha vaakyam by red pen. You can refer the ghanam vaakyam of Veda VMS also for confirming Kachcha vaakyam with sandhis.

Step12.5. (Jeevaksharam protection step).Say J
****
It is here we apply rules to protect the Jeevaksharam and married couples ie FM sets which are marked in Red ink in step 3. By applying different rules modify the markings by red pen so that Jeevaksharam is protected. The rules are not difficult but we should know which rule is to be applied. The RULES are given with the heading *THE RULES.*

Step12.6. (Final step). Say F
****
Finally rewrite the final vaakyam from step 5 and compare with the final vaakyam printed in Veda VMS. That is all.

13.1 Short cut to remember steps 12.1 to step 12.6 given above.
****
PIKSJF----->Police Inspector Kesav Saved Jeevaksharam Finally.

CONCLUSION.
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After a few trials of converting पदपाठं to Ghanam one gets the knowledge of how to do it for any vaakyam in any veda within the mind itself. Thereafter we will be witnessing the dance of the members in veda mantras. Aim of this write up is to help the reader to experience the same.
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Message from prof. Sivakumar (IIT BOMBAY)
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To Shri P.R.IYER
From: G Sivakumar
Date: Sun, Aug 30, 2020, 11:10 AM
Subject: Re: MARKS IN VEDA (English and San)
Namaskarams.

Below i've put together a brief note on my experience in learning the Vedic accents system from you. My sincere thanks and 1000-namaskarms for enriching me with this knowledge. --- Siva शिवकुमार

================ Learning about Vedic Accents ========

Vedic chanting, proclaimed in 2008 by UNESCO as a "Masterpiece of the Oral and Intangible Heritage of Humanity", is a priceless treasure handed to us by an unbroken *oral* tradition (Sruti).
Learning the proper intonation is best done by oral transmission from an authentic Guru. Putting the intricate tonal nuances down in visual representation on paper is very challenging and error prone. For pragmatic reasons, a solution has been designed using Vedic accents- anudātta, udātta and svarita. Vedic texts- both hard copies and online versions (pdf and unicode)- are easily available nowadays and serve as useful guides to sincere learners. However, due to various reasons, this has lead to many versions with different types of errors especially in the accent markings. A systematic method that can help analyze contradicting versions and finding the correct one is an invaluable boon for all students.

Shri P.R.Iyer after dedicating substantial time, energy and research on this problem has come up with an amazing solution. It is my great fortune that Shri P.R.Iyer chose me to teach his method. In the rest of this message, I am putting down this wonderful learning experience which has given me so much clarity, insight and confidence in how to decode Vedic accents. I hope this will benefit and encourage others to take up this task and enjoy the epiphany.

In mathematics and computer science a recurring theme is how very complex patterns can be captured succinctly using very simple constructs like cellular automata and fractals.

Shri P.R.Iyer has similarly written a concise document ``MARKS IN VEDA MANTRAS' where he has used very interesting analogy of Male (Siva), Female (Shakti) and Ardhanariswara (Siva-Shakti union) and to denote the markings which makes it very intuitive to understand the notion of Jeevaksharams and their "protection sets". Once this basic notation is understood, Shri P.R.Iyer explains using 11 simple rules- each one very simple and easy to understand- how to check whether a given marking is consistent and protects all Jeevaksharas. Shri P.R.Iyer concludes giving a

sequence of 6 steps which can be used to construct final vaakyam from the pada patam. An ingenious mnemonic designed by him ``Police Inspector Kesav Saved Jeevaksharam Finally.' helps us remember the steps and order of application.

When Shri P.R.IYER offered to teach me this method, I was apprehensive thinking it would be very time consuming and difficult. Sensing this, Shri P.R.IYER said that if I can approach this with a fresh mind (blank slate not cluttered with any half-knowledge I might have acquired earlier), all it would take would be at most one hour reading his document and then 2 practice sessions of (30 to 45minutes) with him trying out many examples.

Learning by doing and there was no intricate theory to master or remember. Unbelievable though this was, given the vast subject and its applicability, I thank my good fortune that I agreed to do this.

Once I had some familiarity with the terminology and some of the simpler rules, Shri P.R.Iyer asked me to call him on WhatsApp video and keep his notes and the Rudra Ghanam text (from vedavms.in) ready with me.

Like a beginning swimmer thrown into the deep end of the pool, he asked me to go through sample vaakyams derived from the पदपाठs and explain to him whatever I understood. Fumbling at first, then with increasing confidence, I could locate the Jeevaksharas and then identify how they were protected by the final accent markings using the appropriate rules.

A few days later we had the second practice session where after giving me some test examples Shri P.R.Iyer focused on explaining Rule 8 for double verticals.

In summary, after investing 3 hours of my time spread over a week, I can say that I've been empowered with a really amazing tool to understand and analyze how Vedic accents are derived. It will add immense delight to all my future chanting experiences.

I thank Shri P.R.Iyer for going out of his way to freely share the fruits of his tremendous efforts in designing this system. My 1000-namaskarams to him. G. Sivakumar siva@iitb.ac.in
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